

REMARKS

I. Introduction

In response to the Office Action dated August 4, 2009, claims 1, 5, 21, 25, 41 and 45 have been amended. Claims 1, 3-9, 11-21, 23-29, 31-41, 43-49 and 51-60 remain in the application. Re-examination and re-consideration of the application, as amended, is requested.

II. Claim Objections

In section (4) of the Office Action, claims 10, 30 and 50 were objected to under 37 C.F.R. §1.75(c) as being in improper dependent form.

Applicant's attorney traverses these objections, as claims 10, 30 and 50 were canceled in the previous response.

III. Prior Art Rejections

In section (5) of the Office Action, claims 1, 3-5, 7-16, 20-23, 27-36, 40-43, 47-56 and 60 were rejected under 35 U.S.C. §103(a) as being unpatentable over Johnson et al., U.S. Patent No. 7,082,411 (Johnson), in view of Sandretto, U.S. Patent No. 5,812,988 (Sandretto), in view of Fundamentals of Financial Management by Kuhlemeyer (Kuhlemeyer), and further in view of Keyes et al., U.S. Patent No. 7,447,652 (Keyes). In section (6) of the Office Action, claims 6, 26, and 46 were rejected under 35 U.S.C. §103(a) as being unpatentable over Johnson et al., U.S. Patent No. 7,082,411 (Johnson), in view of Sandretto, U.S. Patent No. 5,812,988 (Sandretto), in view of Fundamentals of Financial Management by Kuhlemeyer (Kuhlemeyer), in view of Keyes et al., U.S. Patent No. 7,447,652 (Keyes), and further in view of Atkins, U.S. Patent No. 5,852,811 (Atkins).

However, in sections (7)-(8) of the Office Action, claims 17-19, 37-39, and 57-59 were indicated as being allowable if rewritten in independent form to include the base claim and any intervening claims.

Applicant's attorney acknowledges the indication of allowable claims, but respectfully traverses the rejections. Specifically, Applicant's attorney submits that the combination of references does not teach or suggest all of the various elements of Applicant's independent claims.

Applicant's claims recite a new variation for NPV calculations, in their use of NPV forecast rules. Specifically, the NPV forecast rules are novel and nonobvious improvements to prior art NPV calculations.

The combination of Johnson, Sandretto, Kuhlemeyer and Keyes, for example, merely describe well-known prior art NPV calculations. However, none of these references describe the novel and nonobvious specific NPV calculations performed in independent claims 1, 21 and 41, and thus the combination fails to render obvious these claims.

Moreover, Applicant's attorney respectfully submits that the Office Action fails to establish how each and every one of the claim limitations is disclosed by the combination of references. Instead, the Office Action merely lists Applicant's claim limitations followed by parentheticals listing page and line numbers, figures, and/or similar words or phrases found in the references, without considering each limitation in its entirety and the independent claims as a whole. Consequently, the Office Action fails to show how each and every element set forth in the independent claims is found in the combination of references, or that each of the independent claims as a whole is taught by the combination of references. As a result, Applicant's attorney respectfully submits that a prima facie obviousness rejection has not been made.

A. The references do not teach the specific steps involved in "applying the NPV forecast rules."

None of the references teach or suggest the specific steps involved in independent claims 1, 21 and 41 when applying the NPV forecast rules, namely "matching the NPV forecast rule against the selected accounts, obtaining an amount to be forecast from the matched accounts using forecast amount selection criteria specified in the NPV forecast rule, obtaining account level information needed from the matched account data, obtaining an Assumed Cash Flow for the matched accounts, obtaining a Contractual Cash Flow from matched accounts, mapping remaining terms of the matched accounts to forecast periods, calculating amounts for each forecast period using the NPV forecast rule, and storing the amounts."

For example, consider the following cited portions of Johnson and Sandretto which the Office Action asserts teaches these limitations:

Johnson: column 4, lines 10-19

Individual asset data (not shown) for each asset in portfolio 12 is entered into a database 76 from which selected data 78 is retrieved based on a given criteria 80 for the iterative and adaptive process 32. When criteria 80 is established for valuation of any asset, that established criteria 80 is stored in database 76 for use in valuating other asset data in database 76 which shares such an established criteria. Iterative and adaptive valuation process 32 thus develops 82 valuations (described below) and groups 84 them for use in bidding.

Johnson: column 9, lines 3-26

In general, NPV is defined as:

$$NPV = c_0 + \frac{c_1}{1+r}$$

where C.sub.0 is the investment at time 0, C.sub.1 is the expected payoff at time 1, and r is the discount factor. The basic idea is that a dollar today is worth more than a dollar tomorrow.

In the case of insurance policies, NPV is defined as:

$$NPV = \sum P - \sum E - (\sum C) \times \frac{A}{E_w}$$

where P is the premium, E is the expected nominal cost, and C is the claim cost. In essence, Equation B is how net income as the difference of profit and weighted expected risk is generated. Note that the summation is summing across all the policies in a specific segment. Also note that all the premium, nominal cost, and claim cost have been discounted before entering the equation. As a result, a profitability score is generated.

Sandretto: column 8, line 60 – column 9, line 19

It is another object of the present invention to provide a method and apparatus for creating a portfolio by: (1) estimating an initial set of cash flows for each asset in a set of two or more assets using known or conventional methods; (2) generate additional estimated cash flows based upon different estimates for one or more economic variables; (3) adjust the original set of cash flows and each additional set of cash flows for expected inflation; (4) determine an initial input risk measure for each asset based on a risk-return type asset pricing model; (5) determine an initial discount rate for each asset using the initial input risk measure for each asset and using different economic variables that relate to each set of cash flows (for example, the risk-free rate and the market risk premium which are typically different for each set of cash flows); (6) discount the inflation-adjusted cash flows at the discount rate to determine a present value for each set of cash flows; (7) use the present values to determine simulated returns for each asset; (8) use the simulated returns for each asset to determine at least one simulated market index return; (9) regress simulated asset returns against simulated market returns or else use division to determine an output risk measure for each asset; (10) use the resulting output risk measure for each asset to estimate a new input risk measure and; (11) repeats steps 1 through 10 (or 4 through 10 in some implementations) in an iterative process until, for each asset, the output risk

measure approximates to within desired accuracy the input risk measure used to determine the most recently iterated discount rate.

Sandretto: column 14, lines 20-61 (actually lines 30-61)

The data processing system for carrying out the invention comprises means for entering estimates of economic variables that are expected to affect inflation-adjusted future cash flow of one or more assets, means for entering estimates of operating, finance, and accounting variables for two or more assets, a processing unit for computing estimated financial statements, estimated cash flows, and inflation-adjusted cash flows for two or more assets (only cash flows or inflation adjusted cash flows if the assets are bonds) using the initial estimates of economic variables and asset-specific variables, and a processing unit for computing the NPV of each of said two or more assets, given a discount rate for each asset as implied by a preferred asset pricing model. In an iterative or recursive numerical process, an initial estimate of the discount rate is selected.

Said data processing unit also contains means for selecting different estimates of said economic variables. Said different estimates may be selected randomly or non-randomly and may be based on estimated behavior of said economic variables. The data processing unit means for computing estimated future financial statements, cash flows, and NPVs are then applied to each of the different estimates of economic variables to produce one or more additional said NPVs for each said asset. Said NPVs, which include all cash flows to or from owners of said assets, are used to estimate simulated returns for one or more periods for each said asset. Said data processing unit also contains means for computing an index or indexes of returns for each economic variable or set of economic variables comprising at least one asset affected by said economic variable or set of economic variables.

There is no discussion in the above cited portions of Johnson and Sandretto of NPV forecast rules, a forecast amount selection criteria specified in a NPV forecast rule, a matching step or function, an Assumed Cash Flow for matched accounts, a Contractual Cash Flow from matched accounts, or a mapping step or function.

Instead, Johnson merely describes a method of valuation of large groups of assets by partial full underwriting, partial sample underwriting and inferred values of the remainder using an iterative and adaptive statistical evaluation of all assets and statistical inferences drawn from the evaluation and applied to generate inferred values. Individual asset values are developed and listed in tables so that individual asset values can be taken and quickly grouped in any desired or prescribed manner for bidding purposes. The assets are collected into a database, divided by credit variable, subdivided by ratings as to those variables and then rated individually. The assets

are then regrouped according to a bidding grouping and a collective valuation established by cumulating the individual valuations.

The above portions of Johnson cited by the Office Action merely refer to establishing valuations of assets using a general definition of NPV (Net Present Value). However, nowhere do the above portions of Johnson refer to applying the NPV forecast rules by matching the NPV forecast rule against these selected accounts and then performing the remaining steps in the limitation.

Indeed, the Office Action concedes that this portion of Johnson does not perform the remaining steps in the limitation. Nonetheless, the Office Action cites Sandretto as teaching these elements of Applicant's independent claims.

However, Sandretto merely describes creating a portfolio by: (1) estimating an initial set of cash flows for each asset in a set of two or more assets using known or conventional methods; (2) generating additional estimated cash flows based upon different estimates for one or more economic variables; (3) adjusting the original set of cash flows and each additional set of cash flows for expected inflation; (4) determining an initial input risk measure for each asset based on a risk-return type asset pricing model; (5) determining an initial discount rate for each asset using the initial input risk measure for each asset and using different economic variables that relate to each set of cash flows (for example, the risk-free rate and the market risk premium which are typically different for each set of cash flows); (6) discounting the inflation-adjusted cash flows at the discount rate to determine a present value for each set of cash flows; (7) using the present values to determine simulated returns for each asset; (8) using the simulated returns for each asset to determine at least one simulated market index return; (9) regressing simulated asset returns against simulated market returns or else use division to determine an output risk measure for each asset; (10) using the resulting output risk measure for each asset to estimate a new input risk measure and; (11) repeating steps 1 through 10 (or 4 through 10) in an iterative process until, for each asset, the output risk measure approximates to within desired accuracy the input risk measure used to determine the most recently iterated discount rate.

Specifically, the above portions of Sandretto cited by the Office Action refer to determining present values for the cash flows of assets, in the context of a method for estimating an asset's risk and net present value. However, Sandretto does not determine these values in the manner recited in Applicant's independent claims. Indeed, the portions of Sandretto cited

against Applicant's independent claims 1, 21 and 41, do not teach or suggest the specific steps or functions performed by Applicant's claims, namely that, after the NPV forecast rule is matched against the selected accounts,, the remaining steps of "obtaining an amount to be forecast from the matched accounts using forecast amount selection criteria specified in the NPV forecast rule, obtaining account level information needed from the matched account data, obtaining an Assumed Cash Flow for the matched accounts, obtaining a Contractual Cash Flow from matched accounts, mapping remaining terms of the matched accounts to forecast periods, calculating amounts for each forecast period using the NPV forecast rule, and storing the amounts," are performed. Instead, Sandretto merely refers to estimating discount rates by calculating risk measures, which are used to discount projected cash flows.

Consequently, Applicant's claim limitations would not have been obvious to one skilled in the art at the time the invention was made.

B. The references do not teach the specific types of "NPV forecast rules."

None of the references teach or suggest the specific types of NPV forecast rules recited in Applicant's independent claims 1, 21 and 41, namely "Constant (no compounding), Constant (with compounding), Additive (no compounding), Additive (with compounding), Manual (no compounding), Manual (with compounding), Declining balance, Interest - Unpaid Principal, Interest - Paid Principal, and Constant methods."

Instead, the Office Action merely makes a general assertion that the Kuhlemeyer reference teaches these limitations because the cited portions of the cited reference use similar terms. However, in neither instance is the claim as whole, or even the limitation as a whole, described in the cited portions in the Kuhlemeyer reference. Instead, Kuhlemeyer merely describes the use of different cash flows in different forecast periods. These different cash flows of Kuhlemeyer merely comprise examples of specific amounts, and do not comprise Applicant's specific types of NPV forecast rules, namely "Constant (no compounding), Constant (with compounding), Additive (no compounding), Additive (with compounding), Manual (no compounding), Manual (with compounding), Declining balance, Interest - Unpaid Principal, Interest - Paid Principal, and Constant methods."

Consequently, Applicant's claim limitations would not have been obvious to one skilled in the art at the time the invention was made.

C. The remaining references do not overcome these deficiencies.

The remaining Keyes reference fails to overcome these deficiencies of Johnson, Sandretto and Kuhlemeyer. Moreover, this is conceded by the Office Action because the Keyes reference was cited only for teaching limitations of Applicant's independent claims 1, 21 and 41 directed to selecting accounts, amounts and rates from account data, generating cash flow and net present value based on received cash flow information, expenses and timings, and providing different scenarios based on a variety of assumptions taking into account a variety of foreseeable risks.

Similarly, the Atkins reference fails to overcome these deficiencies of Johnson, Sandretto, Kuhlemeyer and Keyes. Recall that the Atkins reference was cited only against dependent claims 6, 26, and 46, and was cited only for describing the limitations shown in those dependent claims, but not any of the limitations shown in the independent claims.

Consequently, Applicant's claim limitations would not have been obvious to one skilled in the art at the time the invention was made.

D. Summary.

In summary, Applicant's independent claims 1, 21 and 41 recite limitations not shown by the combination of Johnson, Sandretto, Kuhlemeyer and Keyes. Thus, Applicant's attorney submits that independent claims 1, 21 and 41 are allowable over Johnson, Sandretto, Kuhlemeyer and Keyes. Further, dependent claims 3-9, 11-20, 23-29, 31-40, 43-49 and 51-60 are submitted to be allowable over Johnson, Sandretto, Kuhlemeyer, Keyes and Atkins in the same manner, because they are dependent on independent claims 1, 21, and 41, respectively, and thus contain all the limitations of the independent claims. In addition, dependent claims 3-9, 11-20, 23-29, 31-40, 43-49 and 51-60 recite additional novel elements not shown by Johnson, Sandretto, Kuhlemeyer, Keyes and Atkins.

IV. Conclusion

In view of the above, it is submitted that this application is now in good order for allowance and such allowance is respectfully solicited. Should the Examiner believe minor matters still

remain that can be resolved in a telephone interview, the Examiner is urged to call Applicant's undersigned attorney.

Please consider this a PETITION FOR EXTENSION OF TIME for a sufficient number of months to enter these papers, if appropriate. Please charge all fees to Deposit Account No. 50-4370 of Teradata Corporation (the assignee of the present application).

Respectfully submitted,

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